US EPA, Region III Reviewed and Approved

by Assessment Section

PRELIMINARY ASSESSMENT
OF THE
ROGERS ELECTRIC COMPANY
(MD-445)

ORIGINAL (RED) MARCH 1993

Prepared by: Maryland Department of the Environment

Waste Management Administration

Environmental Response and Restoration Program

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1.0 INTRODUCTION

The Maryland Department of the Environment, Waste Management Administration's Environmental Response and Restoration Program (WAS/ERRP) performed this study under U.S. Environmental Protection Agency (USEPA) Cooperative Agreement V-993004-01-0.

The WAS/ERRP was contracted to conduct a Preliminary Assessment (PA) of the Rogers Electric Company (MD-445). The purpose of this PA is to assess the potential for release of hazardous waste identified at the site. The PA involves the collection of data on the site to evaluate the potential for release of hazardous waste via groundwater, surface water, soil exposure and air. The populations and sensitive environments which potentially may be affected are then discussed. The scope of the PA included review of available file information, a target survey, and site reconnaissance to determine if additional action under CERCLA is required.

2.0 SITE DESCRIPTION AND OPERATIONAL HISTORY

2.1 LOCATION

The Rogers Electric Company is located on Columbia Park Road in Cheverly, Maryland in the west central portion of Prince Georges County (See figures 1,2, and 3). The geographic coordinates are 38° 55' 0" north latitude and 76° 54' 35.3" west longitude. The Maryland Grid Coordinates of the site are 394,500 feet north by 826,200 feet east.

The most direct route to the site from Baltimore city would be to take Route 95 south to Route 295 south (Baltimore Washington Expressway). Follow 295 south for approximately 25 miles to Route 202. Take Route 202 east for less than one mile, and make a right hand turn onto Cheverly Avenue. Proceed on Cheverly Avenue for an estimated 4 miles until you come to Columbia Park Road. Make left hand turn onto Columbia Park Road and continue driving for approximately 2 miles. Rogers Electric is on left hand side in the Blake Construction Industrial Park. Total one way distance to the site is about 36 miles.

2.2 SITE DESCRIPTION

Rogers Electric is an electrical construction contracting company located in the Blake Industrial Park in Cheverly Maryland. The site consists of approximately two acres that include both a business office and staging area for various equipment and tools. The site also contains a former storage yard where oil filled electrical equipment including transformers, welder cores and drums of Polychlorinated biphenyl (PCB) contaminated materials were

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previously stored.

The site property is rectangular in shape and is bounded by a barbed wire fence on all four sides. In addition to owning the land Rogers Electric is situated on, Blake Construction owns property to the west of the site which it uses as a storage area for construction related materials. To the immediate east of the site is a small patch of woods and then a large building occupied by the Smithfield Food Company. To the north of the site is Beaverdam Creek, railroad tracks and then Route 50. On the opposite side of Columbia Park Road and to the south of the site, a large building is inhabited by Washington Roofing Products.

At the time of the site reconnaissance, forty 55 gallon drums filled with PCB related materials were located in the staging area inside the building. It is unknown to this writer whether or not the drums had exceeded the 90 day storage requirement. In addition to the drums, one large roll-off container loaded with PCB/RCRA wastes was ready for off site disposal. The container was covered with plastic sheeting.

The topography of the site is considerably flat and there are no wells located on site.

2.3 OPERATIONAL HISTORY

The Rogers Electric Company, Inc. operated an electrical construction contracting company from approximately 1983 until the company filed for chapter 11 bankruptcy in 1989. The inactive facility is owned and operated by the Blake Construction Company, Inc. of Washington D.C. and began leasing the property to Rogers Electric in the early nineteen eighties. The most recent deed of trust rendered by the Prince Georges County Land Records Office indicates that Blake Construction obtained the site property from the Hutchinson Brothers Excavating Company, Inc. on March 3, 1981 for the sum of 506,000 dollars²¹.

2.4 HAZARDOUS WASTE MANAGEMENT PRACTICES

Hazardous Waste Management Enforcement files indicate that the Rogers Electric facility stored hazardous as well as non hazardous materials on the site property for over six years without a permit. PCB contaminated transformers and PCB liquids stored in 55 gallon drums made up the hazardous contents while an assortment of large sea land containers, pipe, scrap metal, empty drums and fuel tanks, old boats and cars were disposed of as non hazardous materials.

Remedial Action consisting of the removal of PCB contaminated materials from the Rogers Electric site was mandated by the United States Environmental Protection Agency by way of an Administrative



Order in May 1992 (See Appendix 1). The removal of hazardous as well as non hazardous materials is being performed jointly by Blake Construction, Inc. and the Defense Reutilization Marketing Service (DRMS), a program within the United States Defense Logistics Agency (DLA). The work plan and the oversight of this Remedial Action is being done by R.E. Wright Associates, Inc. of Westminster, Maryland. Removal Actions got underway in August 1992 and representatives from Blake Construction anticipate that all wastes will be removed from the site by April 1993.

In addition, two underground storage tanks were removed in October 1992 which formerly contained petroleum products. One UST was reported to be of 10,000 gallon capacity and the other UST had a holding capacity of 12,000 gallons.

2.5 PREVIOUS INSPECTIONS

MDE Waste Management Administration (formerly HSWMA) Enforcement records indicate that regular inspections of the Rogers Electric facility began during the 1980's. On March 14, 1988 a Site Complaint (# SC-O-88-136) was issued by MDE to Rogers Electric indicating that 12 PCB transformers, both PCB fluid filled and PCB drained and flushed, were left on site is excess of the 90 day storage requirement, a violation of both state (COMAR) and federal (RCRA) regulations (See Appendices 2 and 3). Enforcement records indicate that the company president at that time, Mr. Edward Kern, said the transformers had been on site for approximately six years and that the company could not fund their disposal.

On June 21, 1988 a follow up inspection was completed by the HSWMA Enforcement staff. This inspection revealed numerous large PCB transformers in storage and numerous 55 gallon drums labeled PCB liquid and PCB items. No information was available as to the exact number of transformers and drums in storage.

On July 28, 1988 a Complaint and Order including a Civil Penalty was issued by the HSWMA. The Administration was seeking a penalty of 25,000 dollars in this case. There are no records indicating that this fine or any other fine had been paid by Rogers Electric.

Over the next several months, the Hazardous Waste Enforcement Program continued to inspect the site on a regular basis while Rogers Electric appealed the case. PCB contaminated transformers and drums remained on site.

On January 23, 1991 Environmental Protection Agency representatives responded to a report of a release of hazardous substances at the site. The On Scene Coordinator discovered that one of the PCB transformers was leaking PCB contaminated oil onto the ground. The OSC further noted the improper storage of



additional PCB transformers and PCB contaminated materials.

In May 1992, EPA Region III issued an Administrative Order by Consent to the Respondents of Rogers Electric pursuant to the Comprehensive Environmental Response Compensation and Liability Act of 1980.

3.0 SAMPLING

According to the Waste Management Administration's Remedial file, sampling of the Rogers Electric site took place primarily during the months of August, September, and October 1992. A variety of sample types were taken at the site including soil, air, water, sludge, tank bottom and wipe samples from an abandoned car and boat. Two separate environmental agencies were represented during sampling activities. The prime contractor, R.E. Wright Associates, collected samples in addition to Spotts, Stevens, and McCoy Associates, a subcontractor to the Defense Reutilization and Marketing Services (DRMS). A sample location map was not made available to the writer of this Preliminary Assessment, however based on file review, it appears samples were collected from different locations throughout the two acre facility.

Using Gas Chromatograph analyses, R.E. Wright Lab Services indicated levels of PCB contaminants slightly above the detection limit for soil samples (See Appendix 4). Those items and materials that were classified as hazardous waste were removed by Clean Harbors, Inc. and transported to a permitted facility. All material and debris categorized as non hazardous was disposed of through Blake Construction. Upon completion of the Removal Action, a full report including sampling information will be provided to EPA and MDE by R.E. Wright Associates.

4.0 GROUNDWATER PATHWAY

4.0.1 PRECIPITATION

The net annual precipitation in the site area is approximately 8 inches per year (ipy). This estimate is based upon the reported mean values of 44 ipy precipitation and 36 ipy lake evaporation 14.

4.1 HYDROGEOLOGIC SETTING

4.1.1 PHYSIOGRAPHIC PROVINCE

The site is located in the Coastal Plain physiographic province. The Coastal Plain is composed of numerous layers of unconsolidated sediments ranging in age from the Cretaceous to the present. Some formations were deposited by streams flowing from



the Piedmont Province, and other formations were deposited in a shallow marine environment. Each formation dips away from the Piedmont Province and becomes thicker toward the Atlantic Ocean. As a result, the Coastal Plain is a wedge of sediments beginning at the Fall Line (line dividing the Coastal Plain Province and the Piedmont Province) and reaching over 8,000 feet in thickness at Ocean City on the Eastern Shore. 12

The Rogers Electric site is located in the upper portion of the Potomac Group, specifically the Patapsco Formation and Arundel Clay (undifferentiated). This part of the Potomac Group consists of dark gray to maroon clay with lenses of varicolored sand and clay. This acts as an effective aquiclude in most areas. Maximum thickness may reach 500 feet 10,11,12. Figure 8 represents a generalized cross-section of the formations present at the surface and subsurface beneath the site.

Underlying the Patapsco Formation and Arundel Clay is the Patuxent Formation. The Patuxent Formation consists of large round pebbles, and fine white, pink or yellow sand with thin lenses of white or iron stained clay. Maximum thickness may reach 350 feet. (Reference) This formation is a multi-aquifer unit and is one of the most productive water bearing formations in Maryland. Depth to the top of the aquifer is approximately 200 feet. Its transmissivity ranges from 130 ft²/day to as high as 10,700 ft²/day in some areas. The best well yields in the Maryland portion of the formation range from a few hundred to 1200 gallons per minute. Depth to the top of the Patuxent Formation is approximately 200 feet. Depth to the basement rock below the Patuxent Formation is approximately 600 feet 12.

There is no karst terrain present within a four mile radius of the site.

4.1.2 SOILS

The predominant soil type present at the site is the Bibb-Urban land complex. The Bibb series soils consist of deep, level or nearly level poorly drained soils on flood plains along the Coastal Plain. The Bibb-Urban land complex soils are soils that have been filled to depths greater than 18 inches with various types of soils in order to develop the land into streets, buildings, parking lots, etc. This has severely altered and disturbed the natural soil horizons. It is unknown how severely the soils have been disturbed, so it is impossible to predict what horizons still exist. The filling of the flood plain areas has reduced the hazard of flooding only slightly, however 13.



4.2 GROUNDWATER TARGETS

The dominant groundwater use within the four mile radius of the Rogers Electric site is for residential purposes, however, less than one percent of the 155,409 population within the four mile ring depends upon private wells for their potable water supply. A residential population of 79 was determined via well log printouts provided by MDE's Residential Sanitation Program (29 wells) and a multiplicative factor of 2.7 (the Prince Georges County average population per household). There are no municipal wellfields within the target distance radius of the site. The distribution of populations who depend upon private wells within the four mile radius is as follows:

Distance Ring From the Site (Miles)	Private Wells	Residential Ring Population on Private Well
0 - 1/4	0	0
1/4 - 1/2	0	0
1/2 - 1	0	0
1 - 2	4	11
2 - 3	11	30
3 - 4	14	38
Totals:	29	79

The nearest drinking water well is located approximately (b) (9) of the Rogers Electric site. According to the Department's Residential Sanitation Program well log printout, this is a domestic well and there is no known analytical data which supports sampling of this well. The depth of this well is unknown to this writer'. Based on an average of 2.7 persons per dwelling for Prince Georges County, the population associated with the nearest drinking water well is about three (3) persons.

The MDE/Water Management Administration is in the process of developing the wellhead protection area program (WHPA) for municipal groundwater systems in Maryland. The MDE/Water Management Administration has provided the MDE/Waste Management Administration with an interim estimate of two miles as the wellhead protection area for municipal wells located in non-karst terrain. Since there are no municipal wells within the four mile area, the site would not qualify as being in any wellfield WHPA.

4.3 GROUNDWATER CONCLUSIONS

There is no evidence of contamination of groundwater within



the four mile radius of the Rogers Electric site property. There are no on-site wells present, and during the years that Rogers Electric had been in operation, town water has been the sole source of their water supply.

5.0 SURFACE WATER

5.1 HYDROLOGIC SETTING

The Rogers Electric site location has been determined to be in the 100-500 year flood plain¹⁵. The two year 24-hour rainfall is approximately 3.5 inches¹⁴.

Overland surface water from hazardous waste located at the site will flow in a northerly direction for approximately 100 feet where it enters Beaverdam Creek. Beaverdam Creek is the probable point of entry (PPE) and there is no well defined on-site drainage route to the PPE. Beaverdam Creek is classified as a small stream which flows between 10-100 cubic feet per second (cfs)¹.

Beaverdam Creek meanders and flows in a westerly direction for an estimated 1.8 miles where its confluence is the Anacostia River. The Anacostia is a large river with a flow rate of 100 - 1,000 cfs. The Anacostia River flows in a southwesterly direction for approximately 6.3 miles where it then enters into the Washington Channel. The Washington Channel is also considered a large body of water with a flow rate of 100 - 1,000 cfs. The Washington Channel flows in a southerly direction for an estimated 2,300 feet where it enters the Potomac River. The Potomac is a large river with an estimated flow rate of 1,000 - 10,000 cfs. The Potomac takes a southerly course for roughly 6.7 miles where the 15 mile surface water migration pathway ends near Arcturus, Virginia in Fairfax County.

5.2 SURFACE WATER TARGETS

There are no surface water intakes located along the site's 15 mile surface water migration pathway. However, approximately 155,330 persons or over 99 percent of the population living within the four mile distance radius rely upon the Washington Suburban Sanitation Commission (WSSC) for their potable water supply. The WSSC draws its water from (b) (9) intakes on the (b) (9) and from (b) (9) intakes (b) (9) . The intake that serves the four mile radius population is (b) (9) in site.

All bodies of water associated with the sites surface water pathway are used for sustenance and recreational fishing. Boating and sailing are also two widely practiced activities enjoyed on both the Anacostia and Potomac Rivers.



There are numerous frontage miles of wetlands located along the 15 mile surface water pathway. Located along Beaverdam Creek from the PPE to the 15 mile breakpoint of the Potomac River, there is estimated to be 5.25 miles of wetland frontage 16,17,18,19.

Approximately 1.96 frontage miles are classified as palustrine forested, seasonal and temporary tidal wetlands. An estimated 1.2 frontage miles is categorized as palustrine emergent, seasonal tidal wetlands. 1.02 frontage miles was determined as riverine tidal emergent, nonpersistent regular wetlands, and 1.07 frontage miles were of the riverine tidal flat, regular species 16,17,18,19.

5.3 SURFACE WATER PATHWAY CONCLUSIONS

Based on the available file information and the sampling data provided by R.E. Wright Associates, there is no evidence of surface water contamination to the surface water pathway associated with the Rogers Electric site property.

6.0 SOIL EXPOSURE AND AIR PATHWAYS

6.1 PHYSICAL CONDITIONS

The Rogers Electric site is surrounded by a chain linked fence with barbed wire at the top. The entrance gate to the facility is kept locked at all times so unauthorized access to the site is virtually nonexistent.

After the excavation and removal of the two underground storage tanks, soil borings were taken from four different locations at the facility. The borings revealed traces of surficial oil contamination only. That soil was removed from the site and the remaining soils were placed back into the excavated areas.

While on the site visit, hazardous waste containment appeared to be good, and there was no evidence of any recent spills.

6.2 SOIL AND AIR TARGETS

Rogers Electric is an inactive facility which has been in operation for approximately six years. Aside from the personnel involved with the Remedial Actions, there are no workers on site. There are no residences nor day care centers within 200 feet of the site property. The nearest occupied building to the site is the Smithfield Food Company which is located approximately one-quarter mile to the east of the facility. The number of persons Smithfield employs is unknown to this writer.



An estimated 155,409 persons reside within a four mile radius of the site 1,2,3,4,5,6. This population is distributed as follows:

Distance of Ring from the site (miles)	Residential Population in the Ring	
0 - 1/4	33	
1/4 - 1/2	798	
1/2 - 1	8379	
1 - 2	46038	
2 - 3	53318	
3 - 4	46843	
Total Population	155409	

The nearest residence is located off Columbia Park Road, approximately 0.24 mile east of the site. This residence relies on the WSSC system for potable water²⁰.

There are no designated wetlands or terrestrial sensitive environments located on the site property, nor are there any wetland areas located within a 1/2 mile radius of the site property.

6.3 SOIL AND AIR PATHWAY CONCLUSIONS

There are no known analytical data which supports any air contamination at or near the site. While on the site visit, no unusual odors were observed. The soil pathway is relatively limited since there are no workers, residences, schools nor day care facilities on or within 200 feet of the site property.

7.0 SUMMARY AND CONCLUSIONS

Rogers Electric is an inactive electrical construction contracting company located in Cheverly, Maryland approximately 36 miles south of Baltimore. From the years 1983-1989, Rogers Electric was a facility which was inspected on a regular basis by the Waste Management Administration, Enforcement Program. As a direct result from noncompliance to both federal and state environmental regulations, Rogers Electric was issued a civil penalty by MDE in 1988. In January 1991, the Environmental Protection Agency responded to a report of a release of hazardous substances (PCB's) at the site. In May 1992, the EPA issued an Administrative Order by Consent to Rogers Electric mandating the removal of PCB hazardous waste products. In August 1992, Removal Actions got underway at the two acre site. PCB contaminated



materials including transformers, drums, and soils were removed from the site as well as non hazardous items such as old boats, cars, large waste containers and other debris. The clean-up is continuing to this date and the work is projected to be completed by April 1993. R.E. Wright Associates is the prime contractor, providing oversight to the clean-up.



8.0 REFERENCES

- 1. U.S.G.S. 7.5 minute topographic map, Washington East quadrangle 1965, photorevised 1983.
- U.S.G.S. 7.5 minute topographic map, Alexandria, Virginia quadrangle 1965, photorevised 1983.
- 3. U.S.G.S. 7.5 minute topographic map, Mount Vernon, Virginia quadrangle 1966, photorevised 1980.
- 4. U.S.G.S. 7.5 minute topographic map, Anacostia, Virginia quadrangle 1965, photorevised 1979.
- 5. U.S.G.S. 7.5 minute topographic map, Lanham, Maryland quadrangle 1965, photorevised 1979.
- 6. U.S.G.S. 7.5 minute topographic map, Upper Marlboro, Maryland quadrangle, 1965, photorevised 1978.
- 7. ADC's Street map of Prince Georges County, Maryland.
- 8. Maryland Department of the Environment, Waste Management Administration Enforcement Program.
- 9. Maryland Department of the Environment, Water Management Administration, Residential Sanitation Program.
- 10. State of Maryland Department of Geology, Mines, and Water Resources. Geologic map of Prince Georges County and the District of Columbia, 1951.
- 11. Maryland Geological Survey, Geologic Map of Maryland, 1968.
- 12. Maryland Department of Natural Resources, The Quantity and Natural Quality of Groundwater in Maryland, 1987.
- 13. U.S.D.A. Soil Conservation Service, Soil Survey of Prince Georges County, Maryland, 1967.
- 14. U.S.G.S. Technical paper 29, 1958.
- 15. Federal Emergency Management Agency, Flood Insurance rate map, Prince Georges County, Maryland, Community Panel 40 of 120, June 1987.
- 16. U.S. Department of the Interior, Wetlands map, Anacostia/D.C. quadrangle, April 1981.
- 17. U.S. Department of the Interior, Wetlands map, Mount Vernon, Virginia quadrangle, March 1977.

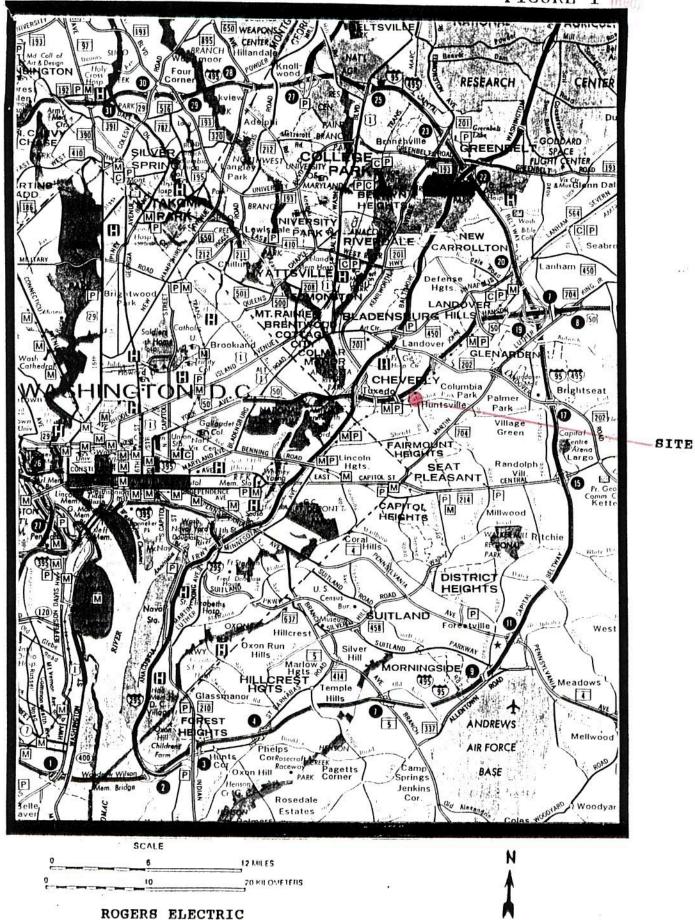


- 18. U.S. Department of the Interior, Wetlands map, Alexandria, Virginia-D.C.-Maryland quadrangle, March 1977.
- 19. U.S. Department of the Interior, Wetlands map, Washington East quadrangle, April 1981.
- 20. Washington Suburban Sanitation Commission, <u>Your Water from Source to Supply, October, 1988.</u>
- 21. Deed of Trust, Hutchison Brothers Excavating Co., Inc. to Blake Construction Co., Inc. March 1981, Prince Georges Co, Maryland Courthouse.



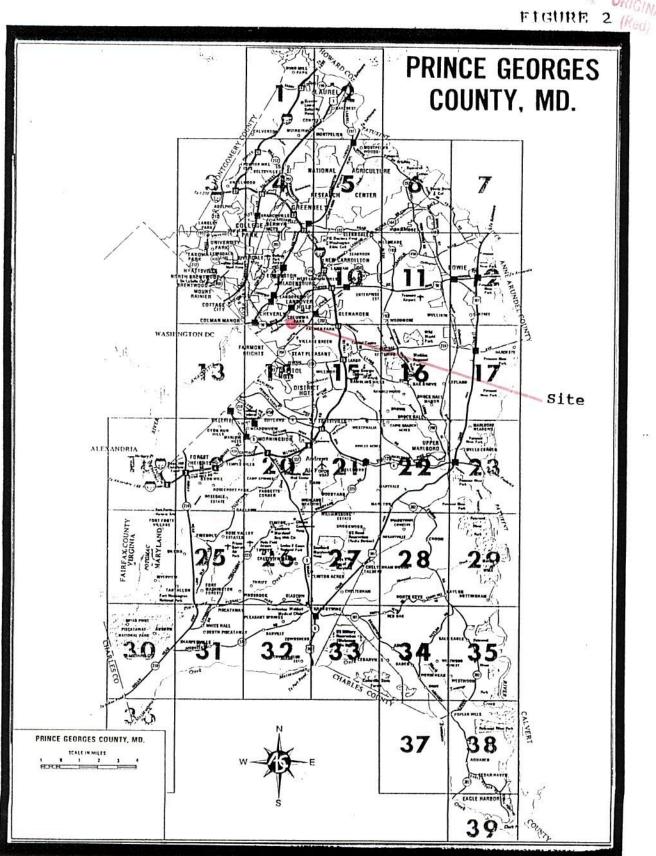
FIGURES

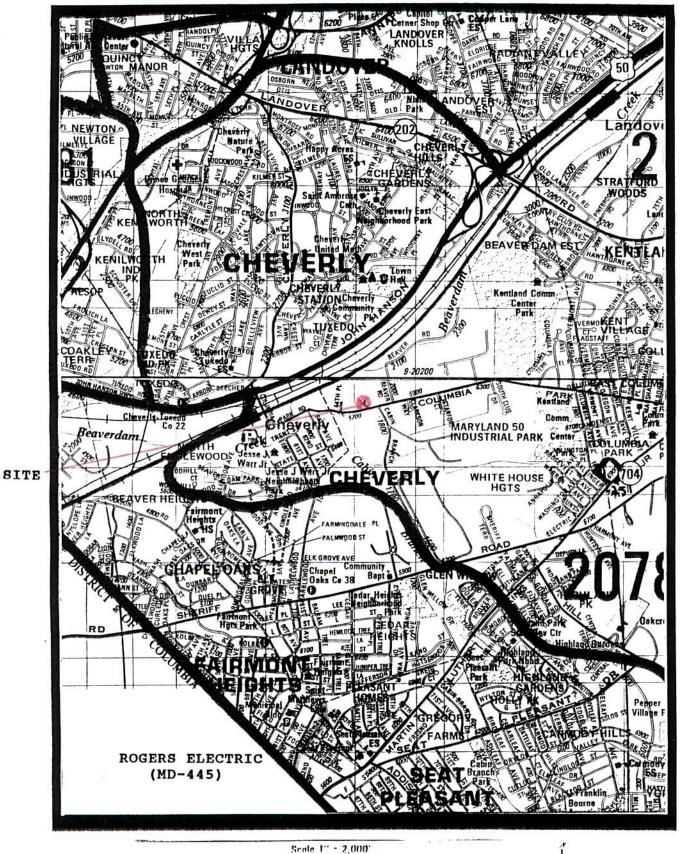




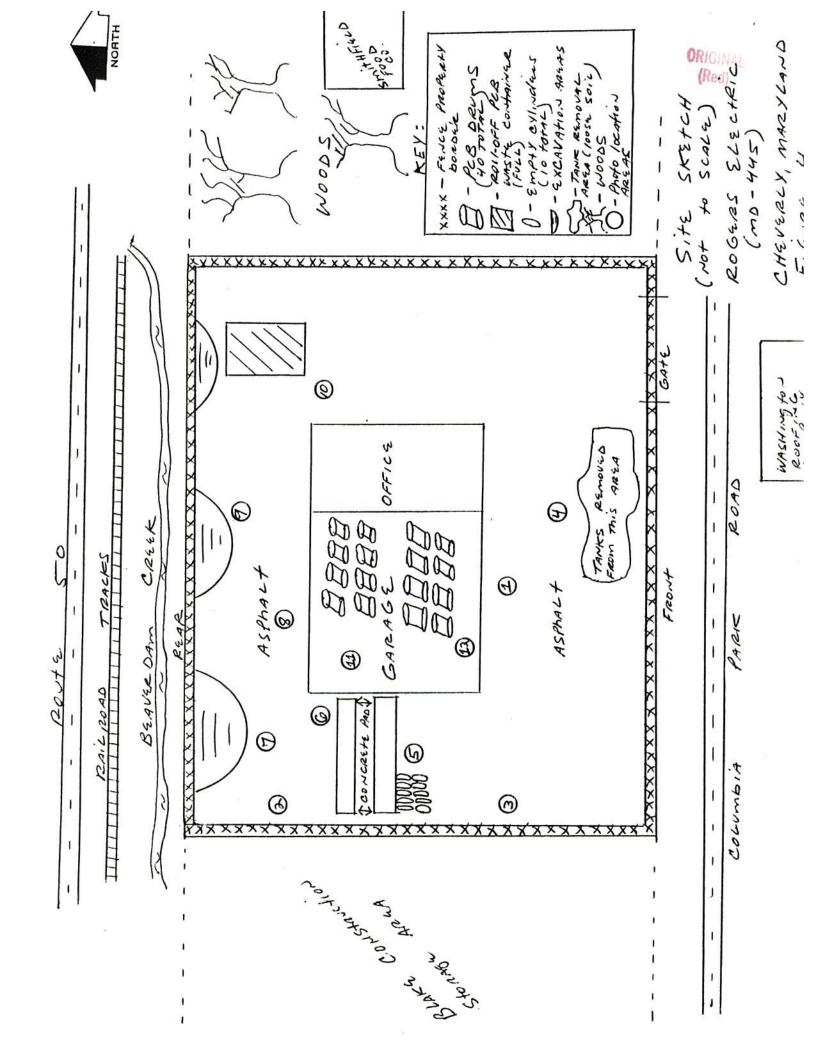
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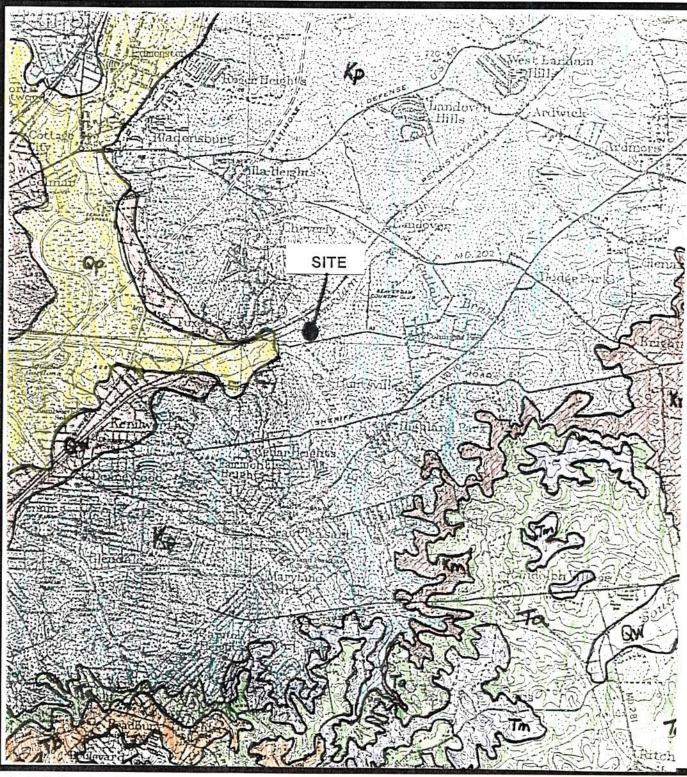
State Highway Administration, 1990













Qw - Wicomico Formation

Tb - Brandywine Formation

Tm - Chesapeake Group (undifferentiated)

Ta -Aquia Formation

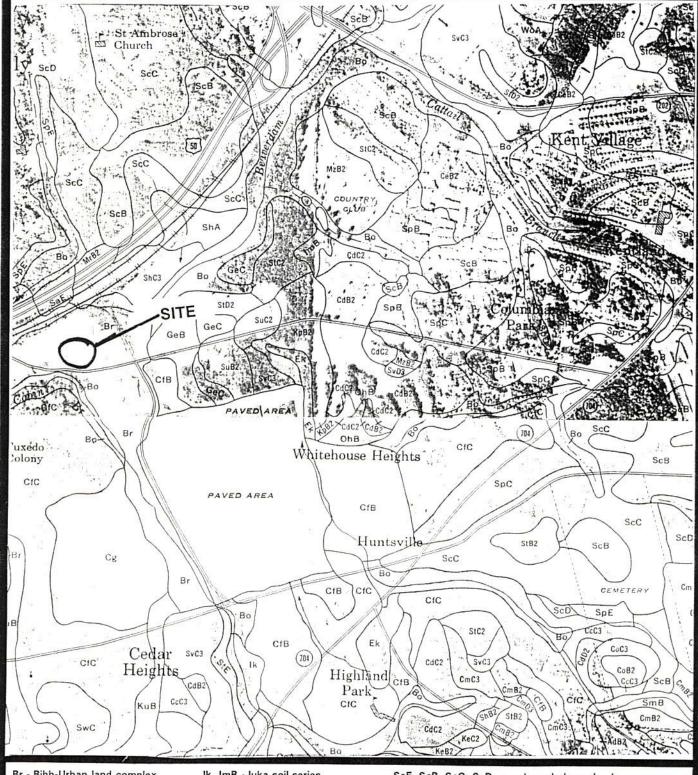
Km - Monmouth Formation

Kp - Patapsco Formation and Arundel Clay (undifferentiated)

Miles



State of Maryland Department of Geology, Mines, and Water Resources. Geologic Map of Prince Georges County and the District of Columbia, 1951,



Br - Bibb-Urban land complex Bo - Bibb soil series

lk, ImB - luka soil series KuB - Keyport-Urban land complex SaE, ScB, ScC, ScD - sandy and clayey land SpB, SpC, SpE - silty and clayey land

Cfc, CcC3, CfB, CcB2, CdC2, CdC3, CdB2 - Christiana soil series

MzB2 - Muirkirk soil series

CmB2, CoC3, CoB2 - Collington soil series

MrB2 - Matawan soil series StB2, StC2,CtC3, SwC - Sunnyside soil series

Cg - clay pits

OhB -Ochlockonee soil series Ek - Elkton soil series

ShA, ShA, ShC3 - Sassafras soil series

5000 Feet

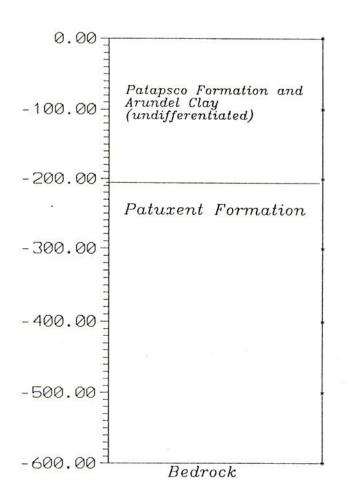
NORTH

GeB, GeC - Galestown-Evesboro soil series

USDA Soil Conservation Service. Soil Survey of Prince Georges County, Maryland. 1967.



GENERALIZED CROSS-SECTION FIGURE 8





PHOTOGRAPHS





 Office Building and Storage Area (Drums stored inside storage area). Photo facing northeast.



 Property boundary of site, northwest corner. Property outside of fence belonging to Blake Construction.



3. Property boundary of site, westward side. Asphalt pavement covered with dirt in foreground. Note previous drum area in foreground by "ring" indentation.



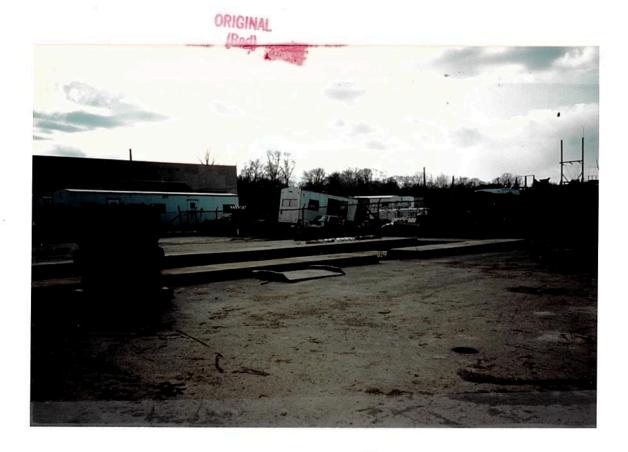
4. Area where underground storage tanks (2) were removed in background. Also, property (gate) entrance. Photo facing southeast.



5. Photograph of ten empty cylinders located on west side of building. Concrete pad located to the right. Photo facing west.



 Concrete pad area where PCB contaminated transformers were previously stored. Photo facing west.



 Concrete pad area and property boundary. Photo facing southwest.



8. Excavated soil area in background. Property boundary (fence) on the northwest side of site.



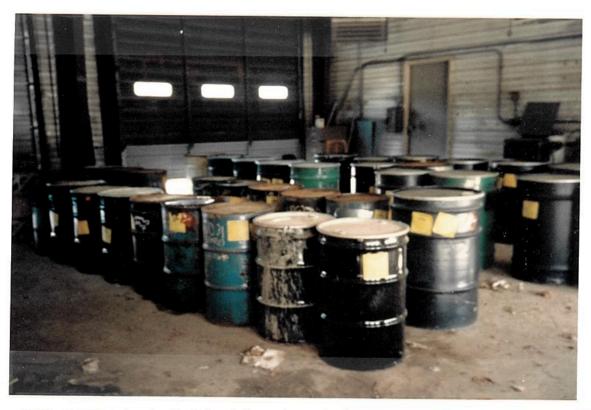
 Photograph facing north. Excavated soil area in background. Beaverdam Creek (PPE) located just beyond fenceline, before railroad tracks.



10. Empty roll-away waste containers. Photo facing northeast.



11. PCB contaminated liquids stored inside 55 gallon drums. Photo taken inside of storage area inside building. Note rust (corrosive) on white drum in middle of photograph.



12. PCB contaminated liquids stored in 55 gallon drums inside building. Drums labeled as hazardous waste product.